

having first and second axial ends and a passage extending between the ends, said first end of said tubular graft being connected substantially in end-to-end relationship with said second end of said stent to define a connection, said connection consisting of said first end of said tubular graft, said second end of said stent and sutures for fixedly connecting the first end of the tubular graft to the second end of the stent.

REMARKS

Reconsideration of this application, as amended, is requested.

Claims 2-4 and 25-27 remain under consideration in this application. Claim 1 has been cancelled in favor of new independent claim 25. New independent claims 26 and 27 also have been added. Claims 2-4 have been amended to depend from and conform with new independent claim 25. Claims 5-24 remain currently withdrawn from consideration in view of the election that was noted in the Office Action.

This Amendment is submitted concurrently with the Request for Approval of Drawing Changes. The Request is accompanied by a copy of the sheet of drawings that present FIGS. 4 and 5. The curved hooks depicted originally in FIGS. 4 and 5 now have been supplemented with the number 28 as presented in the original specification. Formal drawings will be filed upon allowance of the claims.

The Examiner raised a formal objection to claim 2. The amendments to claim 2 address this rejection.

Claims 1-4 were rejected under 35 USC 112, second paragraph. The Examiner identified specific objectionable terminology in original claims 1 and 2. It is believed that the amended and new claims address the rejection under 35 USC 112, second paragraph.

Claims 1-4 were rejected under 35 USC 102(b) as being anticipated by Frantzen et al. The Examiner identified sections of the Frantzen et al. reference that were considered to support the rejection.

Frantzen et al. is directed to a flexible connection between a stent and a vascular graft. In particular, the Frantzen et al. reference shows an assembly 20 that includes a stent 21, a vascular graft 22 and coupler 10. The stent 21 shown in the embodiments of FIGS. 3, 4 and 5 is a generally tubular structure that is spaced axially from the tubular graft 22. The embodiment of FIGS. 6 and 7 also has the tubular stent 21 spaced axially from the tubular graft 22. However, the embodiment of FIGS. 6 and 7 further includes a plurality of tabs 27 that bridge the axial gap between the tubular stent 21 and the tubular graft 22. The tabs 27 have T-members at their ends for attachment to the graft 22. All embodiments of Frantzen include and require the coupler 10. The coupler 10 is defined as being formed from an elastic material that can elongate up to 500%. The coupler concentrically surrounds portions of the stent 21 and the graft 22 and bridges the gap between the stent 21 and the graft 22. The high degree of the elasticity of the coupler 10 will permit axial movement between the stent 21 and the graft 22 and circumferential expansion of the coupler 10. The Frantzen et al. disclosure provides no specific explanation of the motive for the particular designs shown therein. However, as explained in the Information Disclosure Statement of August 2, 2002, it appears that the primary objective of the Frantzen et al. device is to prevent blood flow between the graft and the aneurysm. Such a blood flow is referred to as a Type I Endoleak. The coupler 10 of Frantzen et al. resembles a butt joint employed in the repair of a boat hull. More particularly, a traditional butt joint includes two members that have their ends axially aligned and that are overlapped by a supporting structure. The Examiner will appreciate that the Frantzen et al. requirement for a coupler 10 to

surround both the stent 21 and the graft 22 will add significantly to the cross-sectional dimensions of the assembly. The coupler 10 also will complicate the insertion and implantation, and will require a larger incision and more trauma for the patient.

In contrast to Frantzen et al., the invention defined by new claim 25 is directed to an endovascular stent/graft assembly with "a stent means for directly contacting said first relatively healthy section of said blood vessel." The stent means is defined as being substantially tubular and having opposite first and second ends. The assembly is further defined as having "substantially tubular graft means having a first end section for directly contacting said first relatively healthy section of said blood vessel, said end section being fixedly connected with the second end section of the stent means for achieving a substantially end-to-end connection." The graft means further is defined as "having a second end for directly contacting said second relatively healthy section of said blood vessel such that portions of said graft means between said first and second ends bridge said damaged section of said blood vessel." The Frantzen et al. reference does not have "a substantially tubular graft means having a first end section for directly contacting said first healthy section of said blood vessel."

intended
use
-no weight

* The first end of the tubular graft 22 of Frantzen et al. could be made to contact the blood vessel only by removing the coupler 10. However, the coupler 10 clearly is essential to the Frantzen et al. device and gives the Frantzen et al. device the elasticity that is clearly essential to the device. Hence, there would be no motivation for a person skilled in the art to remove the essential coupler of Frantzen et al. and to fixedly connect the ends of the stent and graft as set forth in new claim 25 and amended dependent claims 2-4. In contrast, the invention of new claim 25 has no coupler and hence has a smaller cross-section, an easier insertion and less trauma for the patient.

New claim 26 defines the stent/graft assembly such that the first end of the tubular graft is connected substantially in end-to-end relationship with the second end of the stent to define a connection. New claim 26 then defines the connection as "consisting of said first end of the said tubular graft, said second end of said stent and adhesive fixedly connecting said graft and said stent." New claim 27 employs similar terminology, but defines the connection as "consisting of said first end of said tubular graft, said second end of said stent and sutures for fixedly connecting the first end of the tubular graft to the second end of the stent." The "consisting of" terminology employed in new claims 26 and 27 precludes the coupler 10 that is a required element of Frantzen et al. Once again, it is submitted that nothing in the Frantzen et al. reference will lead the skilled artisan to the significant revisions that would be required to bring Frantzen et al. closer to the claimed invention.

In view of the preceding amendments and remarks, it is submitted that the claims remaining in the application are directed to patentable subject matter, and allowance is solicited. The Examiner is urged contact applicant's attorney at the number below to expedite the prosecution of this application.

Respectfully submitted,

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